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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,406	12/12/2003	Robert Indech	23050-RA	2092
30184	7590	12/07/2005	EXAMINER	
MYERS & KAPLAN, INTELLECTUAL PROPERTY LAW, L.L.C. 1899 POWERS FERRY ROAD SUITE 310 ATLANTA, GA 30339			GREENE, DANIEL LAWSON	
			ART UNIT	PAPER NUMBER
			3663	

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/735,406	INDECH, ROBERT	
	Examiner	Art Unit	
	Daniel L. Greene Jr.	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 27 September 2005.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-95 is/are pending in the application.
 - 4a) Of the above claim(s) 11,12,15-88 and 90 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-10,13,14,89 and 91-95 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 9/27/2005 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to for the reasons indicated in section 3 of the Office action mailed 7/19/2005.

Applicant's new drawing, Figure 1A, received 9/27/2005 is NOT acceptable.

Figure 1A introduces new matter as well as an inoperative embodiment.

Figure 1A introduces new matter.

There is no support in the original disclosure as filed for the showing of relative sizes and positional relationships of each of the components of the structure of Figure 1A.

Figure 1A introduces an inoperative embodiment.

Repugnant to the 9/27/05 amendment to the specification wherein it discloses items (10) and (54) as CATHODE and ANODE respectively, Figure 1A appears to indicate that item (10) is the ANODE and item (54) is the CATHODE because the indicia near power source (56) show the positive sign leading to CATHODE (10) and the negative terminal connected to ANODE (54).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The amendment filed 9/27/2005 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material, which is not supported by the original disclosure, is as follows:

- a. The amendment to page 14, lines 23-24, regarding Figure 1A. and,
- b. The amendment to page 30, beginning at line 7, the new paragraph regarding Figure 1A.

Applicant is required to cancel the new matter in the reply to this Office Action.

3. The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to provide an adequate written description of the invention and as failing to adequately teach how to make and/or use the invention i.e. failing to provide an

enabling disclosure for the reasons set forth in section 5 of said 7/19/2005 Office action.

Additionally, Applicant's 9/27/2005 amendments to the claims introduced the limitation "atomically sharp", therefore the specification is now further objected to as failing to provide an adequate written description of what all is meant and encompassed by the term "atomically sharp". The specification fails to disclose the metes and bounds of the limitation "atomically sharp" and it is considered that the limitation atomically sharp does not connote the same meaning as having only one atom at the apex.

Further, applicant attempts to define "atomically sharp" by referring to exhibits provided however it is not seen wherein ANY of the exhibits provided disclose the exact definition of "atomically sharp" nor how and in what manner an apex can have only one atom on its tip in order to be considered "atomically sharp". Exhibit "E" appears to show "atomically sharp" protuberances however Figures 5 and 6 clearly indicate that the sharpened tips with a diamond particle on the very end or a nearly continuous layer of coalescent diamond particles. If this is what applicant considers to be "atomically sharp", clearly there are more than one atom at the tips. Page 418 second column first full paragraph of said Exhibit "E" discloses the tips have a radius curvature from 10 to 100nm, meaning the diameter is 20-200nm, again, clearly this is not one atom and therefore not "atomically sharp" and indicative that having only one atom at the apex is not

attainable. Again there is no adequate description or enabling disclosure of what all is meant and encompassed by the limitation “atomically sharp”.

Applicant's arguments received 9/27/2005 have been fully considered however they are not persuasive.

Applicant argues his fusion process or “concept” but is claiming an apparatus such as one sitting on a shelf waiting to be sold. The references cited and applied by the Examiner show that the nuclear fusion artisans do indeed consider applicant's “concept” to be a cold fusion concept. Even if applicant's concept could possibly be construed as not being cold fusion, **ALL the arguments in said 7/19/2005 Office action are still pertinent and must be addressed.**

On page 23 of the 9/27/2005 arguments, applicant attempts to disregard references cited by the Examiner by stating “recognizing the need for nanofabrication, one can dismiss all previous patents before about 1996, as such techniques were not available.” This is not considered correct as the pertinent issue at hand is what was known at the time of filing of the present application, not what was known in 1996.

Regarding page 24, second paragraph and the manufacture of nano-protuberances, again, the manufacture of nano-protuberances is not the issue. The issue at hand is whether one skilled in the art could manufacture and use in an operational embodiment the various surfaces with protuberances as illustrated in applicant's figures, especially with only **one** atom at the apex.

Applicant submitted Exhibits B through I in support of his arguments, however it is noted that Exhibit B is not dated and therefor cannot be relied upon. Even if considered, an exhibit cannot be relied upon to supply information that the specification itself should have provided as of the date of filing.

Regarding the filing date, it is noted that at least Exhibits C and F appear to be published AFTER the filing date of the instant application and as such cannot be relied upon to show the requisite technology for practicing applicants invention was known. Further, NONE of the exhibits provided show how to make the instant invention and as such cannot be used in support thereof.

The first sentence of the first paragraph of section IV. of Exhibit "B" teaches probe tips experience constant contamination, loss of sharpness and degradation of performance. Thus, even if applicant's invention did function at all, it appears it would be an inoperative apparatus because merely producing one or two fusion reactions would not produce a useful energy output or any other useful result.

Further, figure 4 of Exhibit "B" does not show cones, etc. shaped as in applicant's drawings and hence it cannot properly be relied upon as showing how to make applicant's illustrated cones, protuberances, etc.

In the paragraph following Figure 4, there is no evidence to support the conclusion that placing such a surface in an electrolytic bath will produce the protuberances shown in applicant's drawings, with "atomically sharp tips". Also within this paragraph, Applicant admits again that there will be contamination and

erosion, etc. of the tips thus precluding the attainment of an operative device, which could produce a useful result. Furthermore in section VI applicant clearly states that this is a "proposed new method of manufacture" indicating such has not actually been reduced to practice or "proven" to any extent.

Applicant has not shown how his invention accommodates all these issues and still present a useful amount of energy or any other useful result.

Regarding Exhibit "D" there is no showing of the pattern relation to forming the instant inventions structure.

Exhibit "E" does not show tips consisting of a single atom or "atomically sharp"

Exhibit "H" does not show the relationship of muons to the instant invention"

Exhibit "I" is directed towards electron screening in Stellar and Laboratory Plasma's and as such does not overcome the documents cited by the Examiner showing electron screening in a metal will not serve to enhance nuclear fusion. Applicant's invention does not appear directed toward a Stellar or Laboratory Plasma's and therefore this reference has no bearing on the tip of a cone of a metal substrate.

Again, applicant's exhibits do not show how to make the precise configurations shown in applicant's drawings.

There is no reputable evidence of record for the basis of applicant's arguments on page 25 regarding the equation therein, in fact, even applicant

himself supports the Examiners contentions because he admits that the equation "does not have a rigorous derivation".

4. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

Claim Rejections - 35 USC § 112

5. **Claims 1-10, 13, 14, 89, 91-95 are rejected under 35 U.S.C. 112, first paragraph, for the reasons set forth in both section 3 above as well as section 6 of said 7/19/2005 Office action.**
6. **Claims 1-10, 13, 14, 89, 91-95 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the reasons set forth in section 9 of the previous office action mailed 7/19/2005.**
7. **Claims 1-10, 13, 14, 89, 91-95 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claims 1, 3-5, 7, 9 and 93-95 are vague, indefinite and incomplete in what all is meant by and encompassed by the phrase "atomically sharp". Accordingly

the metes and bounds of the claim are undefined. See the discussion of this topic in section 3 above.

Claim Rejections - 35 USC § 101

- 8. Claims 1-10, 13, 14, 89, 91-95 are rejected under 35 U.S.C. 101 for the reasons set forth in section 8 of the previous Office action mailed 7/19/2005.**
- 9. Claims 1-10, 13, 14, 89, 91-95 are rejected under 35 USC 101 for the reasons set forth in section 10 of the previous office action mailed 7/19/2005.**

Claim Rejections - 35 USC § 102

- 10. Claims 1-10, 13, 89, 91-95 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by any of Sawatimova et al, Rice et al, Oriani et al, Haeffner or Kim et al for the reasons set forth in section 12 of the previous office action mailed 7/19/2005.**

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

11. Claims 1, 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Andrus (II) for the reasons set forth in section 13 of the previous office action mailed 7/19/2005.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L. Greene Jr. whose telephone number is (571) 272-6876. The examiner can normally be reached on Mon-Fri 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3663

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DIG 
2005-11-28

JACK KEITH
SUPERVISORY PATENT EXAMINER